The most frequent drug-induced diseases are those associated with legal, socially-acceptable drug abuse—alcohol, tobacco and sleeping pills. Alcohol-related diseases include hepatic cirrhosis, accidents, pancreatitis, peripheral neuropathy, Wernicke's encephalopathy, hypertension, hemolysis and gastroduodenal ulcer disease. Diseases associated with tobacco addiction include cancer of the lip, oral cavity, larynx, bronchus and urinary bladder, arteriosclerosis, coronary heart disease, pulmonary emphysema, fetal maladies and bed fires.

Physical dependence (addiction) and its related withdrawal syndromes are frequent with narcotics, barbiturates, alcohol, tobacco and some tranquilizers. The depressant drugs (alcohol, narcotics, tranquilizers and hypnotics) commonly kill by accidental or intentional overdose—alone or in combinations.

The intravascular injection ("mainlining" or "shooting up") of any drug of abuse results often in complications of serum hepatitis, thrombophlebitis, pulmonary embolism, cellulitis, abscesses, sepsis, bacterial endocarditis and gangrene of extremities (if arterial injection). Inhalation of vapors (glue, gasoline, aerosols, etc.) can cause bone marrow and liver damage, and sudden death from cardiac arrhythmias or suffocation.

The hallucinogens cause irrational behavior with "bad trips" and "flashbacks," and temporary or permanent psychosis, but chromosomal damage is yet unproven. Amphetamines rarely kill acutely but do induce hypertension, hyperpyrexia, a hypermetabolic state, temporary or permanent psychosis, ruptured berry aneurysms and hemolysis, and may be the common denominator in a new disease termed "necrotizing angiitis of drug abusers." Marihuana is noteworthy for the absence of recognized harmful physical effects, unless administered intravascularly.

There is little doubt that the epidemic of recognized diseases (old, new and yet undescribed) associated with drug abuse will continue to increase for many years.

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IgM* Screening of the Newborn

The diagnosis of chronic intrauterine infection of the newborn has long been a problem because it is frequently clinically asymptomatic. Demonstration that the human fetus has immunologic competence has led to the monitoring of total cord blood IgM levels by immunodiffusion. These studies indicate stable levels of IgM from the 30th week of gestation to birth; thus levels in premature and full-term infants should be the same. Increased IgM levels indicate increased fetal antigenic stimulation, such as from intrauterine infection. The mean cord blood IgM level is about 11 mg per 100 ml, and 18 to 20 mg (about 1.5 standard deviation) is considered the most suitable point to indicate abnormality. Each laboratory must standardize its own mean and abnormality point. These levels give very few false negatives and a manageable number of false positives.

Increased cord IgM levels are very successful in detecting intrauterine rubella, Treponema pallidum, toxoplasma, cytomegalovirus and enterovirus infections, in the order of decreasing sensitivity. They are much less successful in detecting acute intrauterine infections, including most bacterial infections. It should be noted that some very severe chronic intrauterine infections of the above types may cause hypogammaglobulinemia with very low IgM levels for even newborns.

It may be anticipated that 2 to 4 percent of all newborns will have elevated cord IgM levels by the above criteria and about one-third of these will prove to have had chronic intrauterine infections. These are mostly clinically silent, yet damaging to the infant in the long run.

Asymptomatic infants with elevated IgM levels should be studied diagnostically with appropriate

*Immunoglobulin M.

specific fluorescent IgM antibody techniques for syphilis, rubella, toxoplasma, cytomegalovirus, etc. If these are negative the infant should be further studied for occult urinary infections, aseptic meningitis, viral conjunctivitis and diarrheal states, etc. The cause of the elevated cord IgM levels that cannot be attributed to such diseases is not apparent at this time. Many workers advise concurrently determining cord IgA levels as an indication of maternal blood contamination, since cord blood has essentially a zero level.

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